Unknown

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Attorney's Docket No.: 06618-882US1/CIT-2749-C-CIP-

Art Unit:

Examiner:

Conf. No.: 7105

UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Ara Chutjian, Murray R.

Darrach

Serial No.: 10/534,643 Filed

Title

: May 11, 2005

: CHEMICAL SENSOR SYSTEM

Mail Stop Amendment Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Applicants call attention to the attached Information Disclosure Statement and documents listed on form PTO-1449.

This filing is being made before the receipt of a first Office action on the merits. No fee is required.

The documents are in the English language; hence no concise explanation is necessary per Rule 98(a)(3).

Consideration of the foregoing and enclosures plus the return of a copy of the enclosed form PTO-1449 with the Examiner's initials in the left column per MPEP 609 are earnestly solicited along with an early action on the merits.

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Applicant: Ara Chutjian, Murray R. Darrach

Serial No.: 10/534,643

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Page : 2 of 2

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Respectfully submitted,

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Attorney's Docket No.: 06618-882US1 / CIT-2749-C-

CIP-US

Substitute Form PTO-1449 U.S. Department of Commerce (Modified) Patent and Trademark Office		Attorney's Docket No. 06618-882US1	Application No. 10/534,643	
	closure Statement	Applicant Ara Chutjian, Murray R. Darrach		
(Use several shot) (37 CFR §1.98(b))	eets if necessary)	Filing Date May 11, 2005	Group Art Unit Unassigned	

			U.S. Pate	ent Documents			
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	4,649,278	March 1987	Chutjian et al.			
	AB	4,698,071	October 1987	Elias			
	AC	4,711,765	Dec 1987	Cates et al.			
	AD	4,814,613	March 1989	Fite et al.			
	AE	4,933,551	June 12, 1990	Bernius			
	AF	5,313,061	May 1994.	Drew et al.			
	AG	5,459,315	Oct 17, 1995	Waki		1	
	АН	6,300,625	Oct. 2001	Ishihara, Morio			

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner	Desig.	Document	Publication	Country or			Trans	slation
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes	No
	AI	89/12315	12/14/89	PCT				

	Other Documents (include Author, Title, Date, and Place of Publication)			
Examiner	Desig.			
Initial	ID	Document		
	AJ	Bernius, et al., "Application of Reversal Electron Attachment for Ultrasensitive Detection of Thermal Electron-Attaching Molecules: CCl4 and C6H5NO2", <u>Anal. Chem.</u> , 62(13): 1345-1349 (1990)		
	AK	Bernius, et al., "Pulsed, high-current, in-line reversal electron attachment detector", <u>J. Appl. Phys.</u> , . 66(7): 2783-2788 (Oct., 1989)		
	AL	Bielajew, A.F. and D.W.O. Rogers, "PRESTA: The Parameter Reduced Electron-Step Transport Akgorithm for Electron Monte Carlo Transport," <u>Nuclear Instruments &amp; Methods in Physics</u> <u>Research</u> B18: 165-181 (1987)		
	AM	Boumsellek, et al., "Increased Response of the Reversal Electron Attachment Detector and Modeling of Ion Space-charge Effects", Anal. Chem., 64(18): 2096-2100, (Sept., 1992)		
	AN	Boumsellek, et al., "Negative-Ion Formation in the Explosives RDX, PETN, and TNT By Using the Reversal Electron Attachment Detection Technique", J. Am. Soc. Mass Spectrom., 3: 243-247 (1992)		
- "	AO	Bruins, "Developments in Interfacing Microbore High-performance Liquid Chromatography with Mass Spectrometry (A Review), <u>Journal of Chromatography</u> , 323: 99-111 (1985)		
	AP	Chutjian et al., "Electron attachment to molecules at low electron energies," Physics Reports 264: 393-470 (1996)		
	AQ	Dahl et al., "SIMION PC/PS2 electrostatic lens design program," Rev. Sci. Instrum. 61(1): 607-609 (1990)		

Examiner Signature	Date Considered			
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with				
next communication to applicant.	•••			

Substitute Form PTO-1449  Modified)  U.S. Department of Commerce Patent and Trademark Office		Attorney's Docket No. 06618-882US1	Application No. 10/534,643	
	losure Statement	Applicant Ara Chutjian, Murray R. Darrach		
(Use several sheets if necessary) (37 CFR §1.98(b))		Filing Date May 11, 2005	Group Art Unit Unassigned	

	Other D	ocuments (include Author, Title, Date, and Place of Publication)
Examiner	Desig.	
Initial	ID	Document
	AR	Dejarme, et al., "Jet Separator/Membrane Introduction Mass Spectometry for On-line Quantitation of Volatile Organic Compounds in Aqueous Solution", <u>Rapid Communications in Mass Spectrometry</u> , 7:935-942 (1993)
	AS	Fernandez de la Mora et al., "Aerodynamic focusing of heavy molecules in seeded supersonic jets", J. Chem. Phys., 91(4): 2603-2615 (Aug., 1989)
	AT	Fink et al., "A method for rapid calculations of electron trajectories in multi-element electrostatic cylinder lenses," Rev. Sci. Instrum. 51: 918-920 (1980)
	AU	Goddard, L.S., "The Computation of Electron Trajectories in Axially Symmetric Fields," <u>Proceedings of the Physical Society</u> 56: 372-378 (1944)
	AV	Gordon, et al., "A Low-Energy Electron Source for Negative Ionization Experiments", <u>International</u> <u>Journal of Mass Spectrometry and Ion Processes</u> , 72:285-297 (1986)
	AW	Henkelman, R.M. and F.P. Ottensmeyer, "An electrostatic mirror," <u>Journal of Physics E: Scientific Instruments</u> 7: 176-178 (1974)
	AX	Herrmannsfeldt, W.B. and Y.T. Yan, "Computer Applied to Particle Accelerator Simulations," <u>AIP Conference Proceedings</u> 260: 142-148 (1992)
	AY	Kang et al., "A Numerical Analysis of the Electric Field and Trajectories with and without the effect of space charge for a field electron source," <u>Proceedings of the 29th International Field Emission Symposium: held at Chalmers University of Technology</u> , Göteborg, Sweden, August 9-13, 1982, Andren, H-O. and H. Nordén et al. (Eds.), Stockholm, Sweden: Almqvist & Wiksell International, pp. 101-110 (1982)
	AZ	Kelly, M.A., "A new electron energy analyzer for electron spectroscopy," <u>Journal of Electron</u> <u>Spectroscopy and Related Phenomena</u> 98-99: 55-66 (1999)
	BA	Kirby, et al., "A CE/ESI-MS Interface for Stable, Low-Flow Operation", Anal. Chem., 68(24): 4451-4457 (Dec., 1996)
	ВВ	Kok, "Air Analysis Using Tenax Xollection with Jet-Separator Enrichment and Ion Trap Mass Spectrometric Analysis", J. Am. Soc. Mass Sptrom., 7: 1172-1176 (1996)
	ВС	Orient et al., "Reversal ion source: a new source of negative ion beams," Rev. Sci. Instrum. 56(1): 69-72 (1985)
	BD	Reiche, S., "GENESIS 1.3: a fully 3D time-dependent FEL simulation code," <u>Nuclear Instruments &amp; Methods in Physics Research A</u> 429: 243-248 (1999)
	BE	StGermain, "Volatile Organic Compound Analysis by an Inertial Spray Extraction Interface Coupled to an Ion Trap Mass Spectrometer", Anal. Chem., 67(24): 4536-4541 (Dec. 1994)
	BF	Thompson et al., "Computer simulations of submicron FIB system optics," <u>J. Vac. Sci. Technol. B</u> 1(4): 1125-1128 (1983)
	BG	Tsuge, "Vacuum Nebulizing Interface for Direct Coupling of Micro-Liquid Chromatograph and Mass Spectrometer", Analytical Chemistry, 51(1): 166-169 (Jan., 1979)
	ВН	Yamashita, et al., "Electrospray Ion Source. Another Variation on the Free-Jet Theme", <u>J. Phys. Chem.</u> , 88(20): 4451-4459 (1984)
ž.	BI	Yoshida, et al., "Improvement of Vacuum Nebulizing Interface for Direct Coupling Micro-Liquid Chromatograph with Mass Spectrometer and some applications to Polar Natural Organic Compounds", Fresenius Z Anal. Chem., 311: 674-680 (1982)

Examiner Signature	Date Considered
Z. Z. T. T. S.	
EXAMINER: Initials citation considered. Draw line through citation if no	t in conformance and not considered. Include copy of this form with
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